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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Hiroshi Saitou

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11/14/2008

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EXAMINER

KHAN, ASHER R

ART UNIT

PAPER NUMBER

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/530,300	<b>Applicant(s)</b> SAITOU ET AL.	
	<b>Examiner</b> ASHER KHAN	<b>Art Unit</b> 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 9 and 10 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Election/Restrictions*

1. During a telephone conversation with Douglas Mueller on 11/06/2006 a provisional election was made with traverse to prosecute the invention of a data recording device that records data into a semiconductor memory pack device, claims 1-8. Affirmation of this election must be made by applicant in replying to this Office action. Claim 9-10 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### *Response to Arguments*

2. Applicant's arguments filed 8/13/2008 have been fully considered but they are not persuasive.

In re page 2 to page 3 line 4, applicants argue Katayama does not disclose or suggest a file management portion that sets a data recording unit of data that is to be supplied to the semiconductor memory pack device to a common multiple of a size obtained by adding up the sizes of erase blocks of the plurality of flash memories.

In response, the examiner respectfully disagrees. The issue is the common multiple, based on applicants disclosure in paragraphs 0067 and 0070 the common multiple is 64Kb. The ordinary definition of common multiple is as follows:

Multiples that are common to two or more numbers are said to be **common multiples**.

E.g. Multiples of 2 are 2, 4, **6**, 8, 10, **12**, 14, 16, **18**, ...

Multiples of 3 are 3, **6**, 9, **12**, 15, **18**, ...

So, common multiples of 2 and 3 are 6, 12, 18, ...

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As to Katayama common multiple are  $(512 \times 4 = 2048)$  or  $(512 \times 2 = 1024)$  bytes of data.

Here:

Multiple of 512 are 512, 1024 and **2048**.

Multiple of 1024 are 1024 and **2048**.

Multiple of 2048 is **2048**.

So, common multiple of 512bytes, 1024bytes and 2048 is 2048bytes.

Thus it is disclosed in Katayama that a file management portion (Fig. 1, file control circuit, 4) sets a data recording unit of data (512 or 1024bytes of data; Col. 4, lines 53-67; Col. 5, lines 1-13) and that is to be supplied to the semiconductor memory pack device to a common multiple (2048 bytes. 4, Col. 4, lines 53-67; Col. 5, lines 1-13) of a size obtained by adding up the sizes of erase blocks (512 times  $4 = 2048$ ) of the plurality of flash memories.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

A person shall be entitled to a patent unless –(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1-4 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,272,610 B1 to Katayama et al. "Katayama".**

As to claim 1, Katayama discloses a data recording device that records data into a semiconductor memory pack device that includes a plurality of flash memories (Fig. 1, Flash memory arrays, 5) performing recording operations in parallel (See Fig. 1; col. 4, lines 39-46; Col. 5, lines 15-20 and Col. 6, lines 3-17 and claim 1), the data recording device comprising: a file management portion (Fig. 1, file control circuit, 4) for managing data that is to be recorded into the semiconductor memory pack (Fig. 1, Flash memory arrays, 5) device as a file; wherein the file management portion (Fig. 1, File control circuit, 4) sets a data recording unit (1024 and 512) of data that is to be supplied to the semiconductor memory pack device to a common multiple (2048 bytes) of a size obtained by adding up the sizes of erase blocks (512 times 4= 2048) of the plurality of flash memories and a data management size of the file management portion (Figs. 4, 5A, 5B and 10; Abstract; col. 2, lines 15-33; Col. 4, lines 53-67; Col. 5, lines 1-67; Col. 6, lines 1-24; Col. 13, lines 15-27).

As to claim 2, Katayama further discloses wherein a data recording unit is an integral multiple of the size obtained by adding up the sizes of the erase blocks of the plurality of flash memories and wherein a data management unit (2048 bytes) of the file management portion (Fig. 1, File control circuit, 4) has the same size as the data recording unit (unit erasure block) (Figs. 4, 5A, 5B and 10; Col. 2, lines 15-33; Col. 4, lines 53-67; Col. 5, lines 1-67; Col. 6, lines 1-24; Col. 13, lines 15-27).

As to claim 3, Katayama further discloses wherein the file management portion (Fig. 1, file control circuit, 4) lets each data recording unit (unit erasure block) include

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only data of the same file (Col 5, lines 38-46)(Figs 5A and 5B, Memory groups 1 through 4 have same recorded file in the top row with file 1).

As to claim 4, Katayama further discloses wherein the file management portion records data only when the semiconductor memory pack device includes free space that is equivalent to the data recording unit (Col. 5, lines 21-46).

As to claim 8, wherein the flash memories are mounted on the semiconductor memory pack device as semiconductor memory cards (Abstract).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.**

**Patent 6,272,610 B1 to Katayama et al. "Katayama" in view of U.S. Patent**

**6,522,268 B2 to Belu.**

As to claim 5, Katayama fails to disclose wherein when data of different files is recorded in the data recording unit, the file management portion sorts recording data in such a manner that the data recording unit includes only data of the same file ; .

Belu discloses wherein when data of different files (file list 202) is recorded in the data recording unit, the file management portion sorts recording data (files of ".doc" extension or ".cpp" extension) in such a manner that the data recording unit includes only data of the same file (Fig 2) (col. 5, lines 42-47)(Col. 7, lines 39-58).

At the time of invention, it would have been obvious to a person of ordinary skill in the art combine Katayama with the teaching of Belu. Motivation to combine would have been to improve compression ratio and speed for first stage compression.

Therefore it would have been obvious to combine Katayama with the teaching of Belu to make the modification as described in claim 5.

**7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,272,610 B1 to Katayama et al. "Katayama" in view of Japanese Document NO. JP 2000-57038 to Naoya Haneda "Haneda".**

As to claim 6, Katayama fails to disclose wherein the semiconductor memory pack device is provided with a region into which file management information of the file management portion is recorded; and wherein when the file management portion records at least two files of an audio data file and a video data file simultaneously and in parallel into the semiconductor memory pack device, the file management information that is recorded in the semiconductor memory pack device is updated at a time when an amount of audio data accumulated as data that is to be supplied to the semiconductor memory pack device becomes an integral multiple of the data recording unit.

As to claim 6, Katayama further discloses wherein the semiconductor memory pack device is provided with a region into which file management information of the file management portion is recorded(Figs 5A and 5B)(Col. 10, lines 40-51)(Col. 14, lines 18-25); and wherein when the file management portion records at least two files ( Figs 5A and 5B, 5-2 and 6-1) simultaneously and in parallel into the semiconductor memory pack device, the file management information (Figs. 5A and 5B, files 1-1, 1-2, 1-3, 1-4)

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that is recorded in the semiconductor memory pack device is updated at a time when an amount of audio data accumulated as data (files 1-1, 1-2, 1-3, 1-4) that is to be supplied to the semiconductor memory pack device becomes an integral multiple ("amount of certain level" when 1-4 sector are filled with data) of the data recording unit (unit erasure block) (Abstract) (From Figs. 5A and 5B when files 1-1, 1-2, 1-3, 1-4 are stored and filled up in the sector 1-4 the information in 5A and 5B is updated) (Col. 10, lines 40-67; Col. 11, lines 1-4).

Katayama fails to disclose files as being audio data file and a video data files in parallel.

Haneda discloses recording of audio and video files in parallel (0002-0010) (0031).

At the time of invention, it would have been obvious to a person of ordinary skill in the art combine Katayama with the teaching of Haneda. Motivation to combine would have been to allow audio and video recordings on flash memory drives to make it compact and easy for a user to carry more audio and video media to play on a device supporting flash memories.

Therefore it would have been obvious to combine Katayama with the teaching of Haneda to make the modification as described in claim 6.

**8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,272,610 B1 to Katayama et al. "Katayama" in view of U.S. Patent Pub. 2001/0043803 A1 to Saeki et al. "Saeki"**



As to claim 7, Katayama fails to disclose wherein when the file management portion records an MPEG stream into a file, the file management information of the file management portion is updated at a time when an amount of recorded data becomes an integral multiple of 1 GOP.

Saeki discloses wherein when the file management portion (AV data input unit 111) records an MPEG stream into a file (AV file which is in MPEG), the file management information (AV data management file) of the file management portion is updated at a time when an amount of recorded data becomes an integral multiple of 1 GOP (GOP information)(0151-0152).

At the time of invention, it would have been obvious to a person of ordinary skill in the art combine Katayama with the teaching of Saeki. Motivation to combine would have been to allow recording upon a request of recording by a user.

Therefore it would have been obvious to combine Katayama with the teaching of Saeki to make the modification as described in claim 7.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ASHER KHAN whose telephone number is (571)270-5203. The examiner can normally be reached on 9:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571)272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/  
Supervisory Patent Examiner, Art Unit 2621  
/A. K./

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